

REMARKS

The Office Action mailed October 20, 2004, has been received and reviewed. Claims 8 through 24 are currently pending in the application. Claims 8 through 24 stand rejected. Applicants have amended claims 8, 9, 11, 12, 14, 15, 17 through 20 and 24, canceled claims 22 and 23, and respectfully request reconsideration of the application as amended herein.

Preliminary Amendment

Applicants' undersigned attorney notes the filing herein of a Preliminary Amendment on October 9, 2003, which filing was not acknowledged in the outstanding Office Action. Should the Preliminary Amendment have failed for some reason to have been entered in the Office file, Applicants' undersigned attorney will be happy to have a true copy thereof hand-delivered to the Examiner.

Double Patenting Rejection Based on U.S. Patent Application No. 10/230,654

Claims 8, 18 through 21, and 24 stand rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1 through 3, 5, 7, and 8 of U.S. Patent Application No. 10/230,654. In order to avoid further expenses and time delay, Applicants elect to expedite the prosecution of the present application by filing a terminal disclaimer to obviate the double patenting rejections in compliance with 37 CFR §1.321 (b) and (c). Applicants' filing of the terminal disclaimer should not be construed as acquiescence of the Examiner's double patenting or obviousness-type double patenting rejections. Attached is the terminal disclaimer and accompanying fee.

35 U.S.C. § 112 Claim Rejections

Claims 22 and 23 stand rejected under 35 U.S.C. § 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Applicants have canceled claims 22 and 23.

35 U.S.C. § 102(b) Anticipation Rejections

Anticipation Rejection Based on U.S. Patent No. 5,352,852 to Chun

Claims 9 through 16 stand rejected under 35 U.S.C. § 102(b) as being anticipated by Chun (U.S. Patent No. 5,352,852). Applicants respectfully traverse this rejection, as hereinafter set forth.

A claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference. *Verdegaal Brothers v. Union Oil Co. of California*, 2 USPQ2d 1051, 1053 (Fed. Cir. 1987). The identical invention must be shown in as complete detail as is contained in the claim. *Richardson v. Suzuki Motor Co.*, 9 USPQ2d 1913, 1920 (Fed. Cir. 1989).

Chun discloses a charge coupled device package with a glass lid 14. The charge coupled device 12 is provided with a plurality of metal lines 13 and a conductive bump 11 on each of its bond pads. A window frame-shaped and double-faced insulating tape 15, having a predetermined thickness and a predetermined width, is bonded to the inside of the plurality of conductive bumps 11 on the charge coupled device 12. The insulating tape 15 is adapted for spacing the glass lid 14 from the CCD 12 by a predetermined interval and uses a window frame-shaped tape which is sized to cover neither the conductive bumps 11 of the CCD 12 nor the metal lines 13 of the glass lid 14. (Col. 5, lines 7-11)

Claim 9, as amended herein, recites an “electronic device package comprising: a transparent substrate; at least one secondary substrate secured by a first surface thereof to a surface of the transparent substrate having a central aperture covered by the transparent substrate and a plurality of conductive traces positioned on the at least one secondary substrate around the central aperture, each conductive trace of the plurality of conductive traces having a first attachment point and a second attachment point on a second surface of the at least one secondary substrate; an optically interactive electronic device having at least one bond pad, the optically interactive electronic device mounted to the secondary substrate by a bond between the first attachment point of a conductive trace of the plurality of conductive traces and the at least one bond pad; and a backing cap covering a back surface of the optically interactive electronic device, the backing cap having at least one backing cap attachment point on a surface thereof in electrical communication with the second attachment point of the conductive trace and at least

one attachment pad on another surface of the backing cap in electrical communication with the at least one backing cap attachment point.”

Applicants respectfully submit that Chun does not disclose each and every element of independent claim 9. More precisely, Chun discloses that metal lines 13 are included on the glass lid 14 and the insulating tape 15 is sized to cover neither the conductive bumps 11 of the CCD 12 nor the metal lines 13 of the glass lid 14. Therefore, Chun does not disclose a plurality of conductive traces positioned on a secondary substrate around the central aperture, each conductive trace of the plurality of conductive traces having a first attachment point and a second attachment point on a second surface of the secondary substrate. Chun also discloses that the insulating tape 15 is double-faced insulating tape, and is bonded to the charge coupled device 12. Therefore, Applicants respectfully submit that Chun does not disclose an optically interactive electronic device mounted to a secondary substrate by a bond between a first attachment point of a conductive trace and a bond pad because Chun expressly discloses insulating tape sized not to cover the metal lines or conductive bumps, but to be bonded to the charge coupled device to the inside of the conductive bumps 11. The conductive bumps 11 of Chun are positioned on the CCD and connect to the metal lines 13 of the glass lid 14. (See FIG. 3B)

Chun further fails to disclose a backing cap having at least one backing cap attachment point on a surface of the backing cap in electrical communication with the second attachment point of the conductive trace and at least one attachment pad on another surface of the backing cap in electrical communication with the at least one backing cap attachment point. Rather, Chun discloses a circuit board 16 with a mounting depression 16a into which the CCD package is inserted. The metal lines 13 of the CCD package are bonded to signal terminals of the circuit board 16. Since Chun does not expressly or inherently describe each and every element of claim 9, the anticipation rejection of claim 9 is improper and should be withdrawn.

Dependent claims 10 through 16 each depend, either directly or indirectly from independent claim 9, which is allowable. Accordingly, Applicants respectfully request reconsideration and allowance of dependent claims 10 through 16.

Claim 11, as amended herein, is additionally allowable, as Chun fails to disclose an array of attachment pads on a surface of a backing cap, the array of attachment pads positioned adjacent four edges of an outer perimeter of the another surface of the backing cap. Rather, Chun

discloses metal lines arranged under opposite sides of the glass lid such that they are spaced apart from each other in the same manner as the conductive bumps 11. (See FIG. 3A)

Claim 15 is additionally allowable, as Chun fails to disclose an outside perimeter of a secondary substrate is substantially equal to an outside perimeter of a transparent substrate. Rather, Chun discloses an insulating tape 15 sized to cover neither the conductive bumps 11 of the CCD 12 nor the metal lines 13 of the glass lid 14. Therefore, the outer perimeter of the insulating tape cannot be substantially equal or equal in any degree to the outside perimeter of the glass lid 14.

35 U.S.C. § 103(a) Obviousness Rejections

Obviousness Rejection Based on U.S. Patent No. 5,352,852 to Chun

Claims 8 and 17 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Chun (U.S. Patent No. 5,352,852). Applicants respectfully traverse this rejection, as hereinafter set forth.

M.P.E.P. 706.02(j) sets forth the standard for a Section 103(a) rejection:

To establish a *prima facie* case of obviousness, three basic criteria must be met. First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or combine reference teachings. Second, there must be a reasonable expectation of success. Finally, **the prior art reference (or references when combined) must teach or suggest all the claim limitations.** The teaching or suggestion to make the claimed combination and the reasonable expectation of success must both be found in the prior art, and not based on applicant's disclosure. *In re Vaeck*, 947 F.2d 488, 20 USPQ2d 1438 (Fed. Cir. 1991). (Emphasis added).

The 35 U.S.C. § 103(a) obviousness rejections of claims 8 and 17 are improper because Chun fails to teach or suggest each and every element of independent claim 8.

Claim 8, as amended herein, recites an electronic device package including a plurality of backing caps, each backing cap covering a back surface of each optically interactive electronic device, the backing cap having at least one backing cap attachment point on a surface of the backing cap in electrical communication with a second attachment point of a conductive trace and at least one attachment pad on another surface of the backing cap in electrical

communication with the at least one backing cap attachment point.

Chun fails to teach or suggest a backing cap having at least one backing cap attachment point on a surface of the backing cap in electrical communication with a second attachment point of a conductive trace and at least one attachment pad on another surface of the backing cap in electrical communication with the at least one backing cap attachment point. Rather, Chun discloses a circuit board 16 with a mounting depression 16a into which the CCD package is inserted. The metal lines 13 of the CCD package are bonded to signal terminals of the circuit board 16. Since Chun does not teach or suggest each and every element of claim 8, the rejection of claim 8 is improper and should be withdrawn.

Claim 17 is allowable, among other reasons, as depending from claim 9 which should be allowed.

ENTRY OF AMENDMENTS

The amendments to claims 8, 9, 11, 12, 15, 14, 17 through 20, and 24 above should be entered by the Examiner because the amendments are supported by the as-filed specification and drawings and do not add any new matter to the application.

CONCLUSION

Claims 8 through 21 and 24 are believed to be in condition for allowance, and an early notice thereof is respectfully solicited. Should the Examiner determine that additional issues remain which might be resolved by a telephone conference, he is respectfully invited to contact Applicants' undersigned attorney.

Respectfully submitted,



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Document in ProLaw

APPENDIX

**(ANNOTATED SHEETS SHOWING CHANGES OF FIGS. 6, 9, 13, & 16,
AND REPLACEMENT FORMAL DRAWINGS OF FIGS. 6, 9, 13, & 16)**

(Serial No. 10/613,277)

IN THE DRAWINGS:

The attached sheets of drawings include changes to FIGS. 6, 9, 13, and 16. The word "DISCREET" has been corrected to "DISCRETE." The sheets, which include FIGS. 5, 6, 9, 10, 13, and 16, replace the original sheets including FIGS. 5, 6, 9, 10, 13, and 16.

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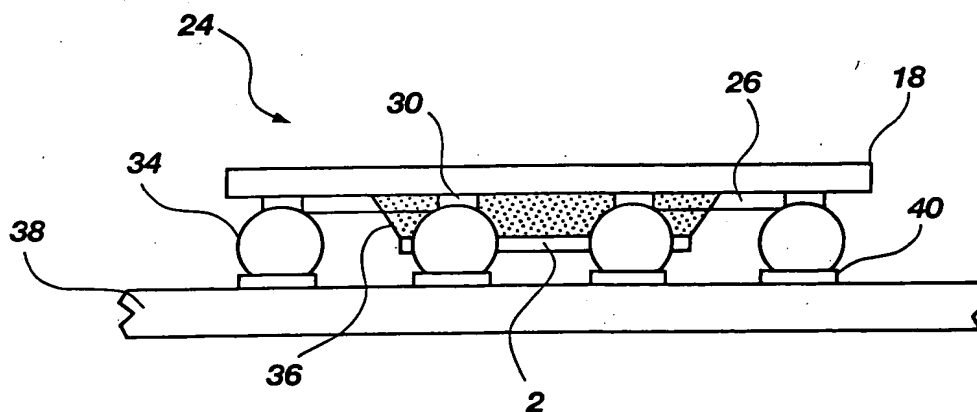


FIG. 5

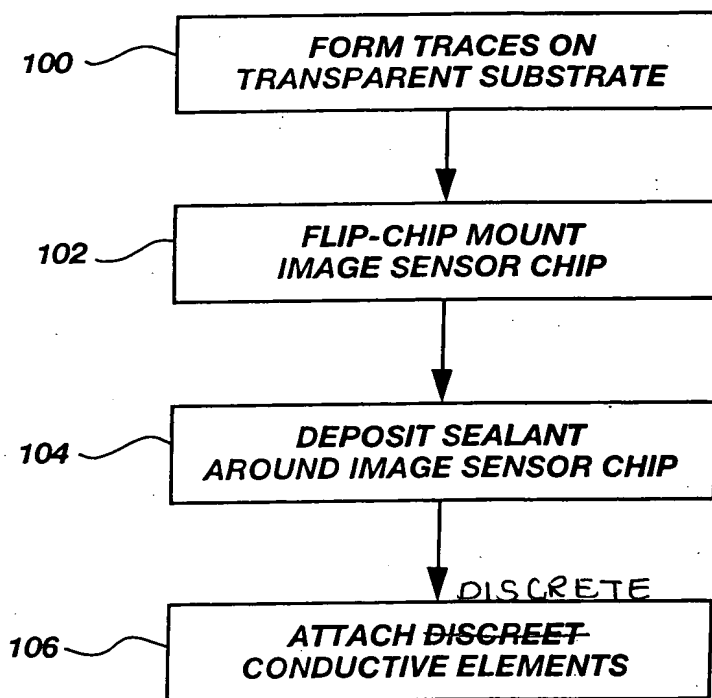


FIG. 6

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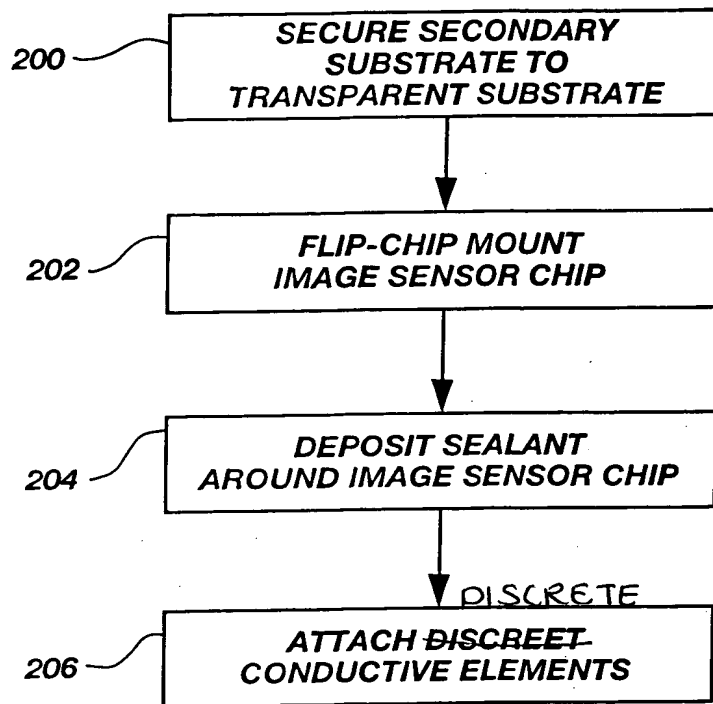


FIG. 9

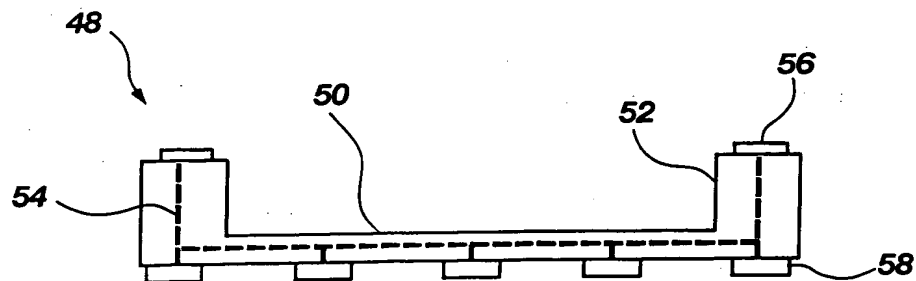


FIG. 10

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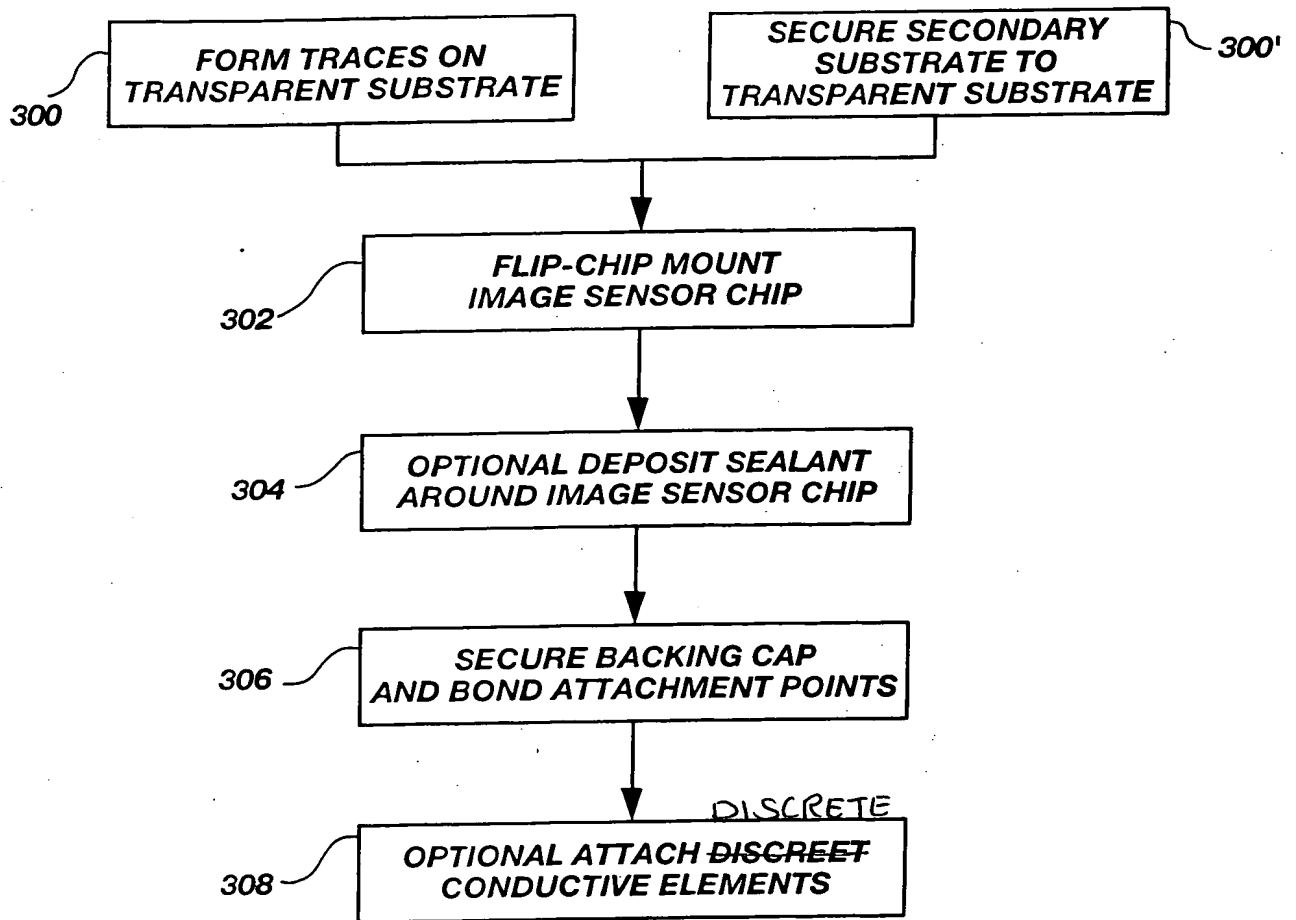


FIG. 13

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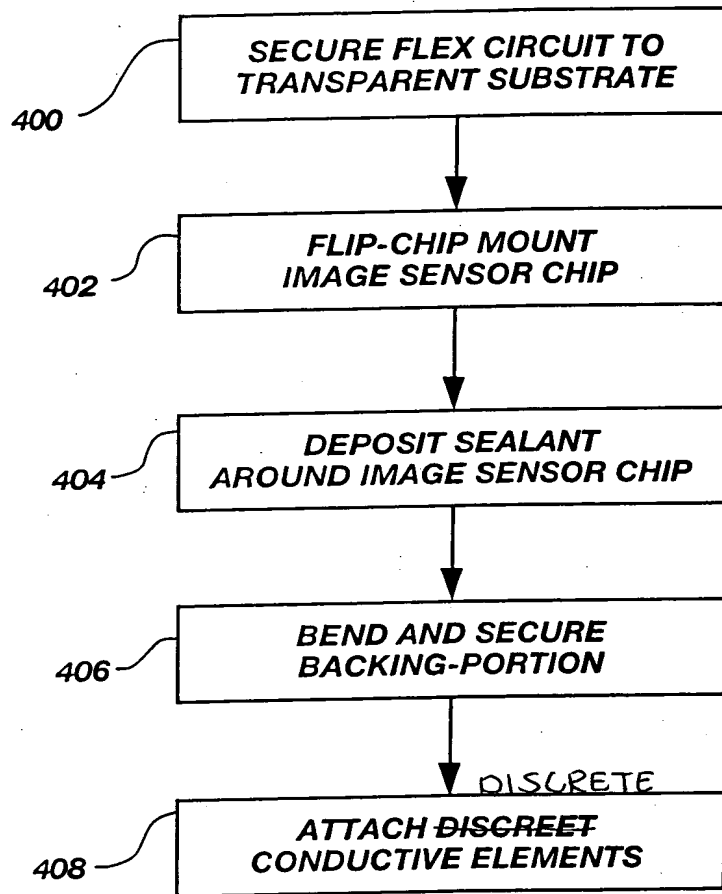


FIG. 16